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SUPERSEDES: 410 6066 4000 VER: 11

## MATERIAL SAFETY DATA SHEET

Hercules Incorporated  
Paper Technologies and Ventures  
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Wilmington, DE 19894-0001  
(302) 594-5000 (24 HRS)

### 1 PRODUCT IDENTIFICATION

PRODUCT NAME ADVANTAGE® 831 DEFOAMING AGENT  
CHEMICAL/Common Name hydrocarbon oil-based defoamer  
CAS Number mixture

### 2 COMPOSITION / INFORMATION ON INGREDIENTS

OSHA Hazardous Ingredient	CASRN	Amount
petroleum distillates, solvent dewaxed heavy paraffinic	64742-65-0	80-85%

### 3 HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW CAUTION!

May cause skin irritation.  
May cause eye irritation.  
Inhalation may cause respiratory tract irritation.  
Surfaces subject to spills may become slippery.

#### POTENTIAL HEALTH EFFECTS

Ingestion may cause gastrointestinal irritation.  
Aspiration may cause lung damage.

Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

### 4 FIRST AID MEASURES

#### SKIN

Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

#### EYE

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.

#### INHALATION

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

#### INGESTION

Do NOT induce vomiting. Get immediate medical attention. See Note to Physician.

#### NOTES TO PHYSICIAN

Aspiration into the lungs will result in chemical pneumonitis and may be fatal.

### 5 FIRE FIGHTING MEASURES

#### EXTINGUISHING MEDIA

Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.

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**FIRE FIGHTING PROCEDURES**

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.  
Cool containers with water to prevent rupture.

**CONDITIONS TO AVOID**

None known.

**HAZARDOUS COMBUSTION PRODUCTS**

Combustion products include: carbon monoxide, carbon dioxide, smoke, silica dust, aldehydes and carboxylic acids

**FLASH POINT**

413 ° F Setaflash Closed Tester

**FLAMMABILITY LIMITS**

- |         |     |
|---------|-----|
| - LOWER | 1 % |
| - UPPER | 6 % |

## 6 ACCIDENTAL RELEASE MEASURES

Ventilate area. Clean up spills immediately. For small spills: Add absorbent, sweep up, and dispose appropriately. For large spills: Dike to contain and pump into drums for use or disposal. In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

This product contains a petroleum hydrocarbon. Material will float on water and runoff may create an explosion hazard. Prevent runoff from spills or leaks entering navigable waters, streams or other bodies of water. If runoff occurs, notify the National Response Center (NRC) at 800-424-8802.

## 7 HANDLING & STORAGE

**GENERAL MEASURES**

Store at temperatures above freezing and below 32° C (90° F).  
Keep container closed when not in use.

**MATERIALS OR CONDITIONS TO AVOID**

Keep away from heat, flame, sparks and other ignition sources.  
Avoid storing product near incompatible materials. See MSDS Section 10.  
Protect from freezing.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**WORK PRACTICES & ENGINEERING CONTROLS**

Eyewash fountains and safety showers should be easily accessible.  
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Discharge from the ventilation system should comply with applicable air pollution control regulations.  
Keep floors clean and dry. Clean up spills immediately.

**GENERAL HYGIENIC PRACTICES**

Avoid contact with eyes, skin, and clothing.  
Avoid inhalation of vapor, mist or aerosol particulates.  
Handle in areas with adequate ventilation.  
Do not swallow.  
Avoid contamination of food, beverages, or smoking materials.  
Wash thoroughly after handling, and before eating, drinking or smoking.  
Remove contaminated clothing promptly and clean thoroughly before reuse.

**RECOMMENDED EXPOSURE LIMITS**

OIL MIST (MINERAL): This product contains a mineral (petroleum hydrocarbon) oil. If this product is used in a manner that could generate an oil mist, the OSHA TWA and ACGIH TLV TWA of 5 mg/m<sup>3</sup>, and TLV STEL of 10 mg/m<sup>3</sup>, should be observed.



**PERSONAL PROTECTIVE EQUIPMENT**

Safety glasses

Impervious gloves

Appropriate protective clothing

Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendations.

**PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE**

Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.

Keep area clean.

**9 PHYSICAL & CHEMICAL PROPERTIES**

PHYSICAL STATE:	oily liquid
COLOR:	light gray to greenish brown
ODOR:	oily
Boiling Point	695 - 840 ° F
Specific Gravity	0.91
Vapor Pressure	< 0.001 mm Hg at 68° F
Evaporation Rate	slower than butyl acetate
Vapor Density	heavier than air
Viscosity	1250 - 2250 cps at 77° F
Solubility In Water	negligible at 68° F
Volatile Organic	1.3

**10 STABILITY & REACTIVITY****HAZARDOUS DECOMPOSITION PRODUCTS**

None known.

**HAZARDOUS POLYMERIZATION**

Not anticipated under normal or recommended handling and storage conditions.

**GENERAL STABILITY CONSIDERATIONS**

Stable under recommended handling and storage conditions.

**INCOMPATIBLE MATERIALS**

Incompatible with: oxidizing agents

**11 TOXICOLOGICAL INFORMATION****CARCINOGENICITY INFORMATION**

Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

**REPORTED HUMAN EFFECTS**

No human toxicity studies have been carried out with this product.

COMPONENT - petroleum hydrocarbon oil: Diarrhea following ingestion. Repeated or prolonged contact may cause skin and eye irritation. Aspiration into the lungs will cause severe lung damage which could be fatal.

**REPORTED ANIMAL EFFECTS**

No animal toxicity studies have been carried out with this product.

**12 ECOLOGICAL INFORMATION****AQUATIC TOXICITY**

Acute 48-hour LC50 (Daphnia magna): 0% Mortality: 1000 mg/l. Acute 96-hour LC50 (Fathead minnow): 2010 mg/l. No Effect Level: 625 mg/l.

## 13 DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL

Incineration in accordance with applicable regulations is the recommended disposal method. Landfilling in a permitted solid or hazardous waste facility is a suitable alternative after solidification to remove free liquids. When the drum is empty, rinse it with plenty of water before discarding. Disposal should be in accordance with applicable Federal, State and local regulations.

## 14 TRANSPORT INFORMATION

### GENERAL

This product is not subject to DOT regulations. For specific information regarding transportation of this product, please call the Hercules representative at (905) 279-3338.

## 15 REGULATORY INFORMATION

### CHEMICAL INVENTORIES

U.S. TSCA: The components of this product are included on the TSCA Inventory.

Canadian CEPA : Included on DSL Inventory.

### SARA TITLE III - SECTIONS 302/304

This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

### SARA TITLE III - SECTIONS 311 AND 312

HC-1: Acute health hazard

NPH: Not a physical hazard

### SARA TITLE III - SECTION 313

This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

### CERCLA

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

### RCRA

This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

## 16 OTHER INFORMATION

### HMIS RATINGS:

Health	1	Slight Hazard
Flammability	1	Slight Hazard
Reactivity	0	Minimal Hazard

**LIST OF ACRONYMS**

ACGIH: American Conferences of Governmental Industrial Hygienists  
AIHA WEEL: American Industrial Hygienists Association-Workplace Environmental Exposure Level  
ANSI: American National Standards Institute  
CASRN: Chemical Abstracts Service Registry Number  
CEPA: Canadian Environmental Protection Act  
CERCLA: Comprehensive Emergency Response, Compensation and Liability Act  
DSL: Domestic Substances List (Canadian)  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
NDSL: Non-Domestic Substances List (Canadian)  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible Exposure Limit (OSHA)  
RCRA: Resource Conservation and Recovery Act  
RQ: Reportable Quantity  
SARA: Superfund Amendment Reauthorization Act  
STEL: Short-Term Exposure Limit  
TLV: Threshold Limit Values (registered trademark of ACGIH)  
TPQ: Threshold Planning Quantity  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average

**DISCLAIMER**

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

**MSDS STATUS**

Supersedes Date	MSDS Revision(s)
03/12/2008	Section 9